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FILE 'CAPLUS' ENTERED AT 14:36:54 ON 27 OCT 2003

L1 0 S (PROSTAGLAN? (S) TANDEM) AND ("MS/MS/MS/MS" OR "MS4")

L2 20 S TANDEM AND ("MS/MS/MS/MS" OR "MS4")

L3 48 S MASS AND ("MS/MS/MS/MS" OR "MS4")

> d l2 ti 1-20

L2 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

TI Comparison of quadrupole time-of-flight, triple quadrupole, and ion-trap mass spectrometry/mass spectrometry for the analysis of emerging contaminants

L2 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

TI Liquid chromatography with electrospray ion-trap mass spectrometry for the determination of anatoxins in cyanobacteria and drinking water

L2 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

TI Simplified method for analyzing peptide primary structure by MS/ MS. MS/MS analysis using squaryl group as CRF-inducing group

L2 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

TI Electrospray ionization tandem mass spectrometric study of the aconitines in the roots of aconite

L2 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

TI Determination of clenbuterol in human urine by GC-MS-MS-MS: confirmation analysis in antidoping control

L2 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

TI Multi-stage tandem mass spectrometry of metal cationized leucine enkephalin and leucine enkephalin amide

L2 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

TI Is LC-MS suitable for a comprehensive screening of drugs and poisons in clinical toxicology?

L2 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

TI De novo sequencing by nano-electrospray multiple-stage tandem mass spectrometry of an immune-induced peptide of Drosophila melanogaster

L2 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

TI Unusual MSn fragmentation patterns of 2,4-dinitrophenylhydrazine and its propanone derivative

L2 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

TI A novel MS7 repeat specific for heterochromatin of sex chromosomes in voles of genus Microtus, group arvalis: genomic organization and chromosomal localization

L2 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

TI Organization of long repeats of sex-chromosomal heterochromatin in common vole species

L2 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

TI On-line coupling of solid-phase extraction with mass spectrometry for the analysis of biological samples. II. Determination of clenbuterol in urine using multiple-stage mass spectrometry in an ion-trap mass spectrometer

L2 ANSWER 13 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Structural validation of saccharomicins by high resolution and high mass accuracy fourier transform-ion cyclotron resonance-mass spectrometry and infrared multiphoton dissociation tandem mass spectrometry

L2 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Primary and secondary locations of charge sites in angiotensin II (M+2H)<sup>2+</sup> ions formed by electrospray ionization

L2 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Role of the sulfhydryl group on the gas phase fragmentation reactions of protonated cysteine and cysteine containing peptides

L2 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Hybrid tandem mass spectrometry of peptides

L2 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Interface for a four-sector mass spectrometer with a dual-purpose collision cell: high transmission at low to intermediate energies

L2 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Collision-Induced Dissociation for Mass Spectrometric Analysis of Biopolymers: High-Resolution Fourier Transform Ion Cyclotron Resonance MS4

L2 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Sequential product-ion spectra (MS3 and MS4) with array detection and reaction-intermediate scanning on a four-sector mass spectrometer

L2 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Consecutive reaction monitoring in a four-sector mass spectrometer: MS4 and one step beyond

=> d l2 ibib abs 12, 17-20

L2 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 2000:846835 CAPLUS  
 DOCUMENT NUMBER: 134:125508  
 TITLE: On-line coupling of solid-phase extraction with mass spectrometry for the analysis of biological samples. II. Determination of clenbuterol in urine using multiple-stage mass spectrometry in an ion-trap mass spectrometer  
 AUTHOR(S): Van Hout, Mischa W. J.; Hofland, Corry M.; Niederlander, Harm A. G.; De Jong, Gerhardus J.  
 CORPORATE SOURCE: Department of Analytical Chemistry and Toxicology, University Centre for Pharmacy, Groningen, 9713 AV, Neth.  
 SOURCE: Rapid Communications in Mass Spectrometry (2000), 14(22), 2103-2111  
 CODEN: RCMSEF; ISSN: 0951-4198  
 PUBLISHER: John Wiley & Sons Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB Solid-phase extn. (SPE) was coupled to ion-trap mass spectrometry to det. clenbuterol in urine. For SPE a cartridge exchanger was used and, after extn., the eluate was directly introduced into the mass spectrometer. For two types of cartridges, i.e. C18 and polydivinylbenzene (PDVB), the total SPE procedure (including injection of 1 mL

urine, washing, and desorption) has been optimized. The total anal., including SPE, elution, and detection, took 8.5 min with PDVB cartridges, while an anal. time of 11.5 min was obtained with C18 cartridges. A considerable amt. of matrix was present after extn. of urine over C18 cartridges, resulting in significant ion suppression. With PDVB cartridges, the matrix was less prominent, and less ion suppression was obsd. For single MS, a detection limit (LOD) of about 25 ng/mL was found with PDVB cartridges. With C18 cartridges an LOD of only about 50 ng/mL could be obtained. Applying tandem mass spectrometry (MS/MS) did not lead to an improved LOD due to an interfering compd. However, a considerable improvement in the LOD was obtained with MS3. The selectivity and sensitivity were increased by the combination of efficient fragmentation of clenbuterol and redn. of the noise. Detection limits of 2 and 0.5 ng/mL were obtained with C18 and PDVB cartridges, resp. The ion suppression was 4 to 45% (concn. range: 250 to 1.0 ng/mL) after extn. of urine using PDVB cartridges, and up to 70% ion suppression was obsd. using C18 cartridges. With MS4, no further improvement in selectivity and sensitivity was achieved, due to inefficient fragmentation of clenbuterol and no further redn. of noise. REFERENCE COUNT: 39

L2 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1995:488822 CAPLUS

DOCUMENT NUMBER: 123:51358

TITLE: Interface for a four-sector mass spectrometer with a dual-purpose collision cell: high transmission at low to intermediate energies

AUTHOR(S): Cheng, Xueheng; Wu, Zhuchun; Fenselau, Catherine; Ishihara, Morio; Musselman, Brian D.

CORPORATE SOURCE: Dep. Chemistry, Univ. Maryland Baltimore County, Baltimore, MD, USA

SOURCE: Journal of the American Society for Mass Spectrometry (1995), 6(3), 175-86

CODEN: JAMSEF; ISSN: 1044-0305

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new interface system that consists of an ion decelerator, a floating collision cell-chem. ionization ion source, and an ion extractor was designed and installed in the third field-free region of a four-sector tandem mass spectrometer. Important features include the use of cylindrical deceleration lenses and an extn. lens assembly. This new design provided enhancement of ion transmission at low to intermediate ion kinetic energies (3 eV to 1 keV) compared with the std. collision cell design. Collision-induced dissocn. expts. from 3 eV to 10 keV and ion-mol. reactions of mass-selected ions can be performed conveniently. A second, grounded, collision cell is located after the extn. lenses, which allows MS4 expts. to be carried out via the normal linked (B/E) scan function in MS2. Incorporation of chem. ionization capability into the elec. isolated collision cell makes it possible to carry out neutralization chem.-reionization mass spectrometry.

L2 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1994:670756 CAPLUS

DOCUMENT NUMBER: 121:270756

TITLE: Collision-Induced Dissociation for Mass Spectrometric Analysis of Biopolymers: High-Resolution Fourier Transform Ion Cyclotron Resonance MS4  
AUTHOR(S): Huang, Yulin; Pasa-Tolic, Ljiljana; Guan, Shenheng; Marshall, Alan G.

CORPORATE SOURCE: National High Magnetic Field Laboratory, Florida State University, Tallahassee, FL, 32306-4005, USA

SOURCE: Analytical Chemistry (1994), 66(24), 4385-9

CODEN: ANCHAM; ISSN: 0003-2700

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Efficient collision-induced dissociation. multistage tandem high-resolution mass spectrometry of peptide ions is demonstrated for the 1st time. Specifically, four-stage Fourier transform ICR collision-induced dissociation. tandem-in-time MS4 is demonstrated for bradykinin quasimolecular ions,  $MH^+$ , produced by matrix-assisted laser desorption/ionization. The authors combine off-resonant excitation and ion axialization to improve the efficiency of parent ion dissociation and product ion collection and detection at every MS stage. The authors observe successive loss of water/ammonia from the C-terminus to leave an  $(MH - NH_3/H_2O)^+$  ion in the 2nd stage, followed by successive losses of the next two amino acids, arginine and phenylalanine. High mass resolving power is achieved throughout all four MS stages, in an experiment that consumes approximately 10 pmol of peptide and takes only approximately 5 min. The authors project that it should be possible to automate this experiment for high-speed sequencing of biopolymers.

L2 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1992:634547 CAPLUS

DOCUMENT NUMBER: 117:234547

TITLE: "Sequential product-ion spectra (MS3 and MS4) with array detection and reaction-intermediate scanning on a four-sector mass spectrometer"

AUTHOR(S): Ballard, Kevin D.; Gaskell, Simon J.; Jennings, Richard K. C.; Scrivens, Jim H.; Vickers, Richard G.

CORPORATE SOURCE: Cent. Exp. Ther., Baylor Coll. Med., Houston, TX, 77030, USA

SOURCE: Rapid Communications in Mass Spectrometry (1992), 6(9), 553-9

CODEN: RCMSEF; ISSN: 0951-4198

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Fragmentation yields during high-energy collisionally activated decomposition (CAD) tandem mass spectrometric experiments are often low, due in part to the short time-period available for the fragmentations. Consequently, attempts at multi-stage mass spectrometry under high-energy CAD conditions can give unsatisfactory results when a conventional point detector is used. Array detection dramatically improves the detection of ion currents of low abundance; it was therefore incorporated in a variety of sequential product-ion 'scanning' experiments, including MS3 and MS4, using a BEBE instrument. The corresponding experiments were previously established on a BEqQ hybrid instrument, where the final stage of decomposition occurred under low-energy CAD conditions. The results from the hybrid were used as a basis of comparison for the results under high-energy

CAD with array detection. On the BEBE instrument, the use of the array greatly enhanced the signal-to-background ratio for second- and third-generation product-ion spectra, as compared to the use of the point detector on that instrument. In several instances, the use of the array was crit. to the success of the expt. on the four-sector instrument. For the peptides analyzed, the fragmentation patterns obsd. in the sequential product spectra were similar on the four-sector instrument and on the hybrid instrument, although the relative abundances differed between the high- and low-energy CAD regimes. Reaction-intermediate scanning, involving two sequential decompn. steps occurring on the microsecond (high energy) time scale, has also been implemented on the BEBE instrument. A new mode of reaction-intermediate scanning has also been implemented on the BEqQ hybrid instrument, permitting it to access sequential fragmentations when both occur under high-energy CAD conditions.

L2 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1988:538273 CAPLUS

DOCUMENT NUMBER: 109:138273

TITLE: Consecutive reaction monitoring in a four-sector mass spectrometer: MS4 and one step beyond

AUTHOR(S): Tomer, Kenneth B.; Guenat, Christian R.; Deterding, Leesa J.

CORPORATE SOURCE: Lab. Mol. Biophys., Natl. Inst. Environ. Health Sci., Research Triangle Park, NC, 27709, USA

SOURCE: Analytical Chemistry (1988), 60(20), 2232-6

CODEN: ANCHAM; ISSN: 0003-2700

DOCUMENT TYPE: Journal

LANGUAGE: English

AB MS4 and MS5 spectra in which decompns. occur in consecutive field-free regions can be obtained on a 4-sector tandem mass spectrometer of BEEB geometry.

Applications to both ion chem. and peptide structure elucidation are demonstrated.

Examples of ion chem. include the following: differentiation between the structure of Bz ions arising in the ion source and via consecutive reactions; monitoring the decompns. of C<sub>7</sub>H<sub>7</sub><sup>+</sup> formed via consecutive reactions from different precursors such as PhMe, PhBu, and 2-bromoethylbenzene; and differentiation of C<sub>3</sub>H<sub>6</sub>O<sup>+</sup> arising via consecutive McLafferty rearrangements and of AcMe mol. ions. In the area of peptide structure elucidations, leucine and isoleucine residues in tripeptides were distinguished by the decompns. of immonium ions (m/z 86) found in MS4 analyses, and the amino acid sequence of a tetrapeptide was detd. by following sequential amino acid residue loss.

L2 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:775310 CAPLUS

TITLE: Comparison of quadrupole time-of-flight, triple quadrupole, and ion-trap mass spectrometry/mass spectrometry for the analysis of emerging contaminants

AUTHOR(S): Thurman, E. M.; Ferrer, Imma

CORPORATE SOURCE: U.S. Geological Survey, Lawrence, KS, 66049, USA

SOURCE: ACS Symposium Series (2003), 850(Liquid Chromatography/Mass Spectrometry, MS/MS and Time of Flight MS), 14-31

CODEN: ACSMC8; ISSN: 0097-6156

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Unique types of structural information for pharmaceutical and pesticide degradates are derived from quadrupole-time-of-flight (Q-TOF), triple quadrupole, and quadrupole ion-trap mass spectrometry/mass spectrometry (MS/MS) instruments for the anal. of emerging contaminants in water. This chapter explains the unique features of the three instruments and gives examples of their complimentary nature. For example, the Q-TOF MS/MS is unique in its ability to give accurate mass measurements (1 to 2 millimass units) of the fragment ions that are ejected from the collision chamber, which give a high assurance of correct identification of unknowns, as well as an empirical formula of fragment ions. The triple quadrupole MS/MS has the unique feature of neutral loss, which allows both quadrupoles 1 and 3 to scan in tandem and is used for identifying unknowns in the chromatogram that are structurally related to one another by fragmentation losses within the mol. Finally, the unique feature of the quadrupole ion-trap MS/MS is its ability to do MS to the n, which typically is MS3 or MS4 for most unknowns. This feature is used for structural elucidation by tracing the pathway of fragmentation within ion fragments. This chapter gives several examples of emerging-contaminant anal. that exemplify the unique features of these three instruments for the identification of unknown compds.

REFERENCE COUNT: 14

L2 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2002:147168 CAPLUS

DOCUMENT NUMBER: 136:162423

TITLE: Is LC-MS suitable for a comprehensive screening of drugs and poisons in clinical toxicology?

AUTHOR(S): Marquet, Pierre

CORPORATE SOURCE: Department of Pharmacology and Toxicology, University Hospital, Limoges, Fr.

SOURCE: Therapeutic Drug Monitoring (2002), 24(1), 125-133

CODEN: TDMODV; ISSN: 0163-4356

PUBLISHER: Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal; General Review

LANGUAGE: English

AB A review with 27 refs. This paper reviews the different attempts made to develop efficient LC-MS techniques for systematic toxicol. anal., or general unknown screening (GUS) of drugs and toxic compds. Only particle beam interfaces are compatible with electron ionization, but they mainly cover the same range of compds. as GC-MS, i.e. nonpolar, thermally stable mols. Using the more used electrospray sources, several approaches were used: tandem-mass spectrometry (MS/MS); MS/MS with data-dependent or information-dependent acquisition (DDA or IDA); and single mass spectrometry with in-source collision induced dissociation (CID). The MS/MS strategy is not really compatible with a GUS procedure, as it requires selecting a limited no. of ions in the first step, before fragmenting them. DDA or IDA are auto-adaptive MS/MS product-ion scan modes where the m/z ratios the intensity of which is above a given

threshold are selected at each unit time. Preliminary studies showed their potential for GUS, but it will probably be necessary to improve the detection of signals of toxicol. interest among background noise. This is also the case for single-MS techniques with in-source CID. Such methods have been proposed by several teams, who demonstrated their repeatability and reproducibility, at least on a same type of instrument and on an intralab. basis. Optimized extn. procedures are necessary to recover polar and even hydrophilic drugs, which are those supposed to be detectable by LC-ES-MS and not GC-MS, and such nonselective extn. may be responsible for high chem. noise. Chromatog. conditions and the resulting sepn., resoln. and signal-to-noise ratio are also probably important determinants of the efficiency of such procedures. Preliminary results using an optimized LC-ES-MS GUS technique showed that it is probably as efficient as GC-MS or HPLC-DAD for the detection of drugs and toxicants in clin. serum samples and that it is complementary to both these techniques.

REFERENCE COUNT: 27

L2 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2003 ACS on STN

AB . . . range of compds. as GC-MS, i.e. nonpolar, thermally stable mols. Using the more used electrospray sources, several approaches were used: tandem-mass spectrometry (MS/MS); MS/MS with data-dependent or information-dependent acquisition (DDA or IDA); and single mass spectrometry with in-source collision induced dissocn. (CID). The MS/MS. . .

L1 0 SEA ABB=ON PLU=ON (PROSTAGLAN? (S) TANDEM) AND ("MS/MS/MS/MS" OR "MS4")

L2 20 SEA ABB=ON PLU=ON TANDEM AND ("MS/MS/MS/MS" OR "MS4")

L3 48 MASS AND ("MS/MS/MS/MS" OR "MS4")

=> d l3 ti 1-48

L3 ANSWER 1 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Comparison of quadrupole time-of-flight, triple quadrupole, and ion-trap mass spectrometry/mass spectrometry for the analysis of emerging contaminants

L3 ANSWER 2 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Hierarchical Scheme for LC-MS<sup>n</sup> Identification of Chlorogenic Acids

L3 ANSWER 3 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Liquid chromatography with electrospray ion-trap mass spectrometry for the determination of anatoxins in cyanobacteria and drinking water

L3 ANSWER 4 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Simplified method for analyzing peptide primary structure by MS/ MS. MS/MS analysis using squaryl group as CRF-inducing group

L3 ANSWER 5 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Electrospray ionization tandem mass spectrometric study of the aconitines in the roots of aconite

L3 ANSWER 6 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Liquid chromatography with electrospray ion-trap mass spectrometry for the determination of yessotoxins in shellfish

L3 ANSWER 7 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Collision-induced dissociations of trimethylsilylated lysergic acid diethylamide (LSD) in ion trap multiple stage mass spectrometry

L3 ANSWER 8 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Determination of clenbuterol in human urine by GC-MS-MS-MS: confirmation analysis in antidoping control

L3 ANSWER 9 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Capillary electrophoresis and capillary electrophoresis-ion trap multiple-stage mass spectrometry for the differentiation and identification of oxycodone and its major metabolites in human urine

L3 ANSWER 10 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Multi-stage tandem mass spectrometry of metal cationized leucine enkephalin and leucine enkephalin amide

L3 ANSWER 11 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Is LC-MS suitable for a comprehensive screening of drugs and poisons in clinical toxicology?

L3 ANSWER 12 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Collision-induced dissociation of glycerophospholipids using electrospray ion-trap mass spectrometry

L3 ANSWER 13 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI De novo sequencing by nano-electrospray multiple-stage tandem mass spectrometry of an immune-induced peptide of *Drosophila melanogaster*

L3 ANSWER 14 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Unusual MS<sup>n</sup> fragmentation patterns of 2,4-dinitrophenylhydrazine and its propanone derivative

L3 ANSWER 15 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Negative and positive ion matrix-assisted laser desorption/ionization time-of-flight mass spectrometry and positive ion nano-electrospray ionization quadrupole ion trap mass spectrometry of peptidoglycan fragments isolated from various *Bacillus* species

L3 ANSWER 16 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI On-line coupling of solid-phase extraction with mass spectrometry for the analysis of biological samples. II. Determination of clenbuterol in urine using multiple-stage mass spectrometry in an ion-trap mass spectrometer

L3 ANSWER 17 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Gravitino creation by an oscillating scalar field

L3 ANSWER 18 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Baryon magnetic moments in the QCD string approach

L3 ANSWER 19 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Gas phase ion chemistry of biomolecules Part 26 do amines react with protonated peptides in the gas phase via transacylation reactions to induce peptide bond cleavage?

L3 ANSWER 20 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Structural Elucidation of Zwitterionic Sugar Cores from Glycosphingolipids by Nanoelectrospray Ionization-Ion-Trap Mass Spectrometry

L3 ANSWER 21 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Baryon magnetic moments in the QCD string approach

L3 ANSWER 22 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN



TI Electrospray mass spectrometry with consecutive fragmentation steps (ESI-MS<sub>n</sub>) as a tool for rapid and sensitive analysis of ginsenosides and their galactosyl derivatives  
 L3 ANSWER 23 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Ion trap MS<sub>n</sub> genealogical mapping-approaches for structure elucidation of novel products of consecutive fragmentations of morphinans  
 L3 ANSWER 24 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Structural validation of saccharomycins by high resolution and high mass accuracy fourier transform-ion cyclotron resonance- mass spectrometry and infrared multiphoton dissociation tandem mass spectrometry  
 L3 ANSWER 25 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Primary and secondary locations of charge sites in angiotensin II (M+2H)<sup>2+</sup> ions formed by electrospray ionization  
 L3 ANSWER 26 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Atmospheric pressure ionization multiple mass spectrometric analysis of pesticides  
 L3 ANSWER 27 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Role of the sulfhydryl group on the gas phase fragmentation reactions of protonated cysteine and cysteine containing peptides  
 L3 ANSWER 28 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Differentiation of lysine/glutamine in peptide sequence analysis by electrospray ionization sequential mass spectrometry coupled with a quadrupole ion trap  
 L3 ANSWER 29 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Electrospray Ionization-Ion Trap Mass Spectrometry for Structural Analysis of Complex N-Linked Glycoprotein Oligosaccharides  
 L3 ANSWER 30 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Structure Elucidation of 2,4-Dinitrophenylhydrazone Derivatives of Carbonyl Compounds in Ambient Air by HPLC/MS and Multiple MS/MS Using Atmospheric Chemical Ionization in the Negative Ion Mode  
 L3 ANSWER 31 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Fragmentation and reactions of organophosphate ions produced by electrospray ionization  
 L3 ANSWER 32 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Analysis of C<sub>60</sub> oxides and C<sub>120</sub>O<sub>n</sub> (n = 1, 2, 3) using matrix assisted laser desorption-ionization Fourier transform mass spectrometry  
 L3 ANSWER 33 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Consecutive Infrared Multiphoton Dissociations in a Fourier Transform Ion Cyclotron Resonance Mass Spectrometer  
 L3 ANSWER 34 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Synthesis of heteropolynuclear gold complexes with tetrathiomolybdate or tetrathiotungstate as ligands  
 L3 ANSWER 35 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI Purification and sequencing of napin-like protein small and large chains from Momordica charantia and Ricinus communis seeds and determination of sites phosphorylated by plant Ca<sup>2+</sup>-dependent protein kinase  
 L3 ANSWER 36 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

TI A transcription factor IIB homolog from the hyperthermophilic archaeon Pyrococcus furiosus binds Zn or Fe in an N-terminal Cys<sub>4</sub> motif

L3 ANSWER 37 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI HPLC-ESI/ion trap mass spectrometer system for structural analysis of biomolecules

L3 ANSWER 38 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Hybrid tandem mass spectrometry of peptides

L3 ANSWER 39 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Characterization of Cytochrome c Variants with High-Resolution FTICR Mass Spectrometry: Correlation of Fragmentation and Structure

L3 ANSWER 40 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Interface for a four-sector mass spectrometer with a dual-purpose collision cell: high transmission at low to intermediate energies

L3 ANSWER 41 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Collision-Induced Dissociation for Mass Spectrometric Analysis of Biopolymers: High-Resolution Fourier Transform Ion Cyclotron Resonance MS4

L3 ANSWER 42 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Dehydration of peptide  $[M + H]^+$  ions in the gas phase

L3 ANSWER 43 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI New insights into the constitution of solutions containing labile, polynuclear compounds: an electrospray mass spectrometric study of mercury- and cadmium-rich dithiocarbamate cations

L3 ANSWER 44 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Sequential product-ion spectra (MS3 and MS4) with array detection and reaction-intermediate scanning on a four-sector mass spectrometer

L3 ANSWER 45 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Syntheses, structures, and reactivities of the sulfur-bridged trinuclear complexes  $[(L)Ru(CO)(PPh_3)]_2(\mu-MS_4)$  ( $L = PhNCH_3$ ,  $CH_2CH_2(C_5H_4N)$ ,  $CH_2CH_2C(O)OMe$ ;  $M = Mo, W$ ). Photochemical and chemical reactions and isolation of a trinuclear complex having a coordinatively unsaturated ruthenium atom

L3 ANSWER 46 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Quasirelativistic effects in the electronic structure of the thiomolybdate and thiotungstate complexes of nickel, palladium, and platinum

L3 ANSWER 47 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Raman single crystal studies of spinel type  $MCr_2S_4$  ( $M =$  manganese, iron, cobalt, zinc, cadmium),  $MIn_2S_4$  ( $M =$  manganese, iron, cobalt, nickel), manganese chromium indium sulfide ( $MnCr_{2-2x}In_{2x}S_4$ ) and cobalt cadmium chromium sulfide ( $Co_{1-x}Cd_xCr_2S_4$ )

L3 ANSWER 48 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Consecutive reaction monitoring in a four-sector mass spectrometer: MS4 and one step beyond

=> d l3 ibib abs 40, 37, 33, 24-26

L3 ANSWER 37 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN  
 ACCESSION NUMBER: 1996:394662 CAPLUS  
 DOCUMENT NUMBER: 125:109200  
 TITLE: "HPLC-ESI/ion trap mass spectrometer system for structural analysis of biomolecules"

AUTHOR(S): *Kanai, Michiko; Xu, Hon; Yamaguchi, Mihoko; Seta, Kazuo; Nakayama, Hiroshi; Shinkai, Fumiko; Isobe, Toshiaki; Okuyama, Tsuneo*  
CORPORATE SOURCE: Tokyo Metropolitan University, Japan  
SOURCE: **Kuromatogurafi (1996), 17(2), 162-163**

CODEN: KUROE9; ISSN: 0917-3048

PUBLISHER: Kuromatogurafi Kagakkai

DOCUMENT TYPE: Journal

LANGUAGE: Japanese

AB Ion trap MS, which has been used for GC/MS, emerged as a detector for HPLC with Atm. Pressure Ionization (API) interfaces such as Electrospray Ionization (ESI) and Atm. Pressure Chem. Ionization (APCI). A schematic diagram of an HPLC-API/Ion Trap MS system (LCQ) is shown. The interfacing of HPLC and API Ion source is the same as that of the HPLC-API/TSQMS. The ion trap MS detector has the electrode assembly consisting of a ring electrode and 2 end-cap electrodes as shown in cross section as well as the dimension  $r_0$  and  $z_0$  and their relationship. The 3-dimensional radiofrequency quadrupole ion trap is only one of a family of devices which utilize path stability as a means of sepg. ions according to their mass-to-charge no. ( $m/z$ ) ratio. The ion trap system is axially sym., and for ideal field geometry within the trap the surfaces should be hyperbolic. The field is generated by applying the RF and DC voltage between the ring electrode and the pair of end cap electrodes. Since the ion trap can trap, eject, or collide ions in the device, so called MS<sub>n</sub> (e.g., MS/MS, MS/MS/MS, etc.) is possible. This characteristic is very useful for the structural anal. of biomols. such as peptides and proteins.

L3 ANSWER 33 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1997:702368 CAPLUS

DOCUMENT NUMBER: 128:32036

TITLE: Consecutive Infrared Multiphoton Dissociations in a Fourier Transform Ion Cyclotron Resonance Mass Spectrometer

AUTHOR(S): Tonner, D. Scott; McMahon, Terrance B.

CORPORATE SOURCE: Department of Chemistry, University of Waterloo, Waterloo, ON, N2L 3G1, Can.

SOURCE: Analytical Chemistry (1997), 69(23), 4735-4740

CODEN: ANCHAM; ISSN: 0003-2700

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Consecutive IR multiphoton dissocns. (IRMPD) may be obsd. in a Fourier transform ion cyclotron resonance mass spectrometer (FTICR). This is the IRMPD equiv. of previous MS<sub>n</sub> expts. using CID. This work presents a versatile technique, using a bistable shutter to gate ON and OFF a continuous-wave (CW) CO<sub>2</sub> laser for multiple irradiation periods of 0.1-1000 s duration. Consecutive photodissocns., up to MS<sub>4</sub>, are demonstrated for the proton-bound dimer of di-Et ether and the resulting fragment ions. The photoproducts are formed close to the center of the FTICR cell, resulting in high product ion recovery efficiency. This differs from CID products, which are formed throughout the FTICR cell causing reisolation/detection problems. The fragmentation

resulting from the use of low-intensity, CW, IR laser radiation is shown to be much more energy selective than CID. Photodissocn. of  $C_2H_5OH_2^+$  ion produces the lowest energy product ion exclusively, even though the two product channels differ only by .apprx.5 kcal/mol. Low-energy CID, however, produces a mixt. of  $C_2H_5^+$  and  $H_3O^+$  products in the ratio of 1.3:1. Hence, the higher energy pathway ( $C_2H_5^+$ ) is substantially favored. The current results indicate that this IRMPD MSn technique may be successfully applied to large biomols. prepd. by electrospray or MALDI.

L3 ANSWER 24 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:804290 CAPLUS

DOCUMENT NUMBER: 132:122813

TITLE: Structural validation of saccharomicins by high resolution and high mass accuracy fourier transform-ion cyclotron resonance-mass spectrometry and infrared multiphoton dissociation tandem mass spectrometry

AUTHOR(S): Shi, Stone D.-H.; Hendrickson, Christopher L.; Marshall, Alan G.; Siegel, Marshall M.; Kong, Fangming; Carter, Guy T.

CORPORATE SOURCE: Center for Interdisciplinary Magnetic Resonance, National High Magnetic Field Laboratory, and Department of Chemistry, Florida State University, Tallahassee, FL, 32310, USA

SOURCE: Journal of the American Society for Mass Spectrometry (1999), 10(12), 1285-1290

CODEN: JAMSEF; ISSN: 1044-0305

PUBLISHER: Elsevier Science Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Exceptionally high mass resolving power and mass accuracy combined with tandem mass spectrometry (MSn) capability make Fourier transform ion cyclotron resonance mass spectrometry a powerful tool for structure verification and detn. of biol. macromols. By means of local internal calibration and electron mass correction, mass accuracy better than  $\pm 0.5$  ppm was achieved for two oligosaccharide antibiotics, Saccharomicins A and B, consistent with the proposed elemental compns. based upon NMR data. High resolu. and high mass accuracy MS/MS data were obtained for both oligosaccharides by use of IR multiphoton dissocn. (IRMPD) with a 40 W continuous-wave CO<sub>2</sub> laser. The spectra were charge-state deconvolved by the "Z-score" algorithm to yield much simpler mass-only spectra. Sequences of 15 sugar residues could be confirmed from the charge state deconvolved accurate mass MS/MS spectra for Saccharomicins A and B, even without use of traditional prior permethylation. A fragment corresponding to an internal sugar loss rearrangement was obsd. by IRMPD and studied by collision activated dissocn.

MS4. REFERENCE COUNT: 32

L3 ANSWER 25 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:790692 CAPLUS

DOCUMENT NUMBER: 132:158459

TITLE: Primary and secondary locations of charge sites in angiotensin II ( $M+2H$ )<sup>2+</sup> ions formed by electrospray ionization

AUTHOR(S): Sullards, M. C.; Reiter, J. A.

CORPORATE SOURCE: Department of Chemistry, Emory University, Atlanta, GA, USA

SOURCE: Journal of the American Society for Mass Spectrometry (2000), 11(1), 40-53

CODEN: JAMSEF; ISSN: 1044-0305

PUBLISHER: Elsevier Science Inc.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB High-energy tandem mass spectrometry and mol. dynamics calcns. are used to det. the locations of charge in metastably decomp.  $(M+2H)^{2+}$  ions of human angiotensin II. Charge-sepn. reactions provide crit. information regarding charge sites in multiply charged ions. The most probable kinetic energy released ( $T_{m.p.}$ ) from these decompns. are obtained using kinetic energy release distributions (KERDs) in conjunction with MS/MS (MS2), MS/MS/MS (MS3), and MS/MS/MS/MS (MS4) expts. The most abundant singly and doubly charged product ions arise from precursor ion structures in which 1 proton is located on the arginine (Arg) side chain and the other proton is located on a distal peptide backbone carbonyl O. The MS3 KERD expts. show unequivocally that neither the N-terminal amine nor the aspartic acid (Asp) side chain are sites of protonation. In the gas phase, protonation of the less basic peptide backbone instead of the more proximal and basic histidine (His) side chain is favored as a result of reduced coulomb repulsion between the 2 charge sites. The singly and doubly charged product ions of lesser abundance arise from precursor ion structures in which 1 proton is located on the Arg side chain and the other on the His side chain. This is demonstrated in the MS3 and MS4 mass-analyzed ion kinetic energy spectrometry expts.  $(b''^7+OH)^{2+}$  product ions, like the  $(M+2H)^{2+}$  ions of angiotensin II, have at least 2 different decomp. structures in which charge sites have a primary and secondary location.

REFERENCE COUNT: 42

L3 ANSWER 26 OF 48 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1999:640105 CAPLUS

DOCUMENT NUMBER: 131:239095

TITLE: Atmospheric pressure ionization multiple mass spectrometric analysis of pesticides

AUTHOR(S): Baglio, Daniela; Kotzias, Dimitrios; Larsen, Bo Richter

CORPORATE SOURCE: Environment Institute, Joint Research Centre, European Commission, Ispra, I-21020, Italy

SOURCE: Journal of Chromatography, A (1999), 854(1 + 2), 207-220

CODEN: JCRAEY; ISSN: 0021-9673

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Liq. chromatog.-multiple mass spectrometry (LC-MS<sub>n</sub>) has been investigated for anal. of polar pesticides in water, using an ion-trap instrument and atm. pressure ionization. Carbamate, triazine and phenylurea pesticides were best ionized as pos. ions with atm. pressure chem. ionization, while phenoxy acid herbicides, nitrophenols and bentazon yielded stronger signals as neg. ions with pneumatically assisted electrospray. The ion fragmentation processes and pathways were studied by MS, MS2, MS3 and

MS4. All compds. were obsd. as their protonized or deprotonized mol. ions by MS and in the successive fragmentation by MS<sub>n</sub> the structures of typical (diagnostic) product ions were tentatively identified for each class of pesticide. Phenylureas yield an ion at m/z 72 by MS<sub>2</sub>, corresponding to O:C:N+(CH<sub>3</sub>)<sub>2</sub>. Carbamates produce [M+H-CONCH<sub>3</sub>]<sup>+</sup> fragments by MS<sub>2</sub> from neutral loss of methylisocyanate. Characteristic fragmentation pathways for triazine pesticides are [M+H]<sup>+</sup>.fwdarw.m/z 174.fwdarw.m/z 146.fwdarw.m/z 110 and [M+H]<sup>+</sup>.fwdarw.m/z 174.fwdarw.m/z 132.fwdarw.m/z 104 by MS-MS<sub>2</sub>-MS<sub>3</sub>- MS<sub>4</sub> from cleavage of lateral chains in the triazine ring followed by ring opening. Phenoxy acid herbicides produce peculiar fragments by MS<sub>2</sub> from loss of the acidic group possibly as the corresponding lactone. Nitrophenols are subject to loss of both OH radical and NO groups, thereby forming the correspondent phenols and quinones. The performance of the method with respect to quantitation compares favorably with traditional methods. With the ion-trap run in a time-scheduled single ion monitoring mode, typical limits of detection (LODs) are in the low pg range and the repeatability std. deviations are between 3 and 15%. Assuming extrn. of 1-1 water samples and 1 mL final vols. the injection of 50-.mu.L aliquots corresponds to LODs well below the requirement for the European Union water directive (EC/80/778).  
 REFERENCE COUNT: 31

#### L1 46 PROSTAGLANDIN? (S) TANDEM

L1 ANSWER 1 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Activation of Peroxisome Proliferator-activated Receptor- $\gamma$ . Inhibits the Runx2-mediated Transcription of Osteocalcin in Osteoblasts

L1 ANSWER 2 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Quantification of 8-iso-prostaglandin-F<sub>2</sub>.alpha. and 2,3-dinor-8-iso-prostaglandin-F<sub>2</sub>.alpha. in human urine using liquid chromatography-tandem mass spectrometry

L1 ANSWER 3 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Simultaneous quantification of prostaglandins in human synovial cell-cultured medium using liquid chromatography/tandem mass spectrometry

L1 ANSWER 4 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Characterization of the human prostaglandin H synthase 1 gene (PTGS1): exclusion by genetic linkage analysis as a second modifier gene in familial thrombosis

L1 ANSWER 5 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Catalytic Enantioselective Synthesis of (-)-Prostaglandin E<sub>1</sub> Methyl Ester Based on a Tandem 1,4-Addition-Aldol Reaction

L1 ANSWER 6 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Quantitative high-performance liquid chromatography/electrospray ionization tandem mass spectrometric analysis of 2- and 3-series prostaglandins in cultured tumor cells

L1 ANSWER 7 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI An efficient synthesis of 12-epi-carbacyclins using a palladium-mediated tandem alkene insertion strategy

L1 ANSWER 8 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Gas chromatography-tandem mass spectrometry determination of 8-iso-PGF<sub>2</sub>.alpha., a biomarker of in vivo lipid peroxidation, in human plasma and urine

L1 ANSWER 9 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Tandem Mukaiyama Michael-aldol reactions catalyzed by samarium diiodide

L1 ANSWER 10 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Efficient synthesis of benzoprostacyclins using free-radical and palladium-catalyzed tandem alkene insertion strategies

L1 ANSWER 11 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Catalytic Enantioselective Synthesis of Prostaglandin E1 Methyl Ester Using a Tandem 1,4-Addition-Aldol Reaction to a Cyclopenten-3,5-dione Monoacetal

L1 ANSWER 12 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Towards defining the urinary proteome using liquid chromatography-tandem mass spectrometry. I. Profiling an unfractionated tryptic digest

L1 ANSWER 13 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Highly Stereocontrolled Synthesis of Carbacyclin from Acyclic Starting Materials via Ti(II)-Mediated Tandem Cyclization

L1 ANSWER 14 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Determination of urinary 8-epi-prostaglandin F2.alpha. using liquid chromatography-tandem mass spectrometry: increased excretion in diabetics

L1 ANSWER 15 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Semi-automated 96-well solid-phase extraction and gas chromatography- negative chemical ionization tandem mass spectrometry for the trace analysis of fluprostenol in rat plasma

L1 ANSWER 16 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Tandem mass spectrometric quantification of 8-iso- prostaglandin F2.alpha. and its metabolite 2,3-dinor-5,6-dihydro-8- iso-prostaglandin F2.alpha. in human urine

L1 ANSWER 17 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Solid- and liquid-phase extraction for the gas chromatographic- tandem mass spectrometric quantification of 2,3-dinor-thromboxane B2 and 2,3-dinor-6-oxo-prostaglandin F1.alpha. in human urine

L1 ANSWER 18 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Use of short high-performance liquid chromatography columns and tandem-mass spectrometry for the rapid analysis of a prostaglandin analog, fluprostenol, in rat plasma

L1 ANSWER 19 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI A Novel Tandem Michael Addition/Meerwein-Ponndorf-Verley Reduction: Asymmetric Reduction of Acyclic .alpha.,.beta.-Unsaturated Ketones Using A Chiral Mercapto Alcohol

L1 ANSWER 20 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Quantitative high performance liquid chromatography/tandem mass spectrometric analysis of the four classes of F2-isoprostanes in human urine

L1 ANSWER 21 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Structural identification of a novel pro-inflammatory epoxyisoprostane phospholipid in mildly oxidized low density lipoprotein

L1 ANSWER 22 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Characterization of the Lysyl Adducts Formed from Prostaglandin H2 via the Levuglandin Pathway

L1 ANSWER 23 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Simultaneous determination of prostaglandin E1, prostaglandin E0 and 15-keto-prostaglandin E0 in human plasma by gas chromatography/negative-ion chemical-ionization tandem mass spectrometry

L1 ANSWER 24 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Practical catalytic asymmetric syntheses of bioactive compounds using ALB [AlLibis(binaphthoxide)] complex

L1 ANSWER 25 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI CCAAT/enhancer-binding protein .delta. is a critical regulator of insulin-like growth factor-I gene transcription in osteoblasts

L1 ANSWER 26 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Application of gas chromatography-mass spectrometry and gas chromatography-tandem mass spectrometry to assess in vivo synthesis of prostaglandins, thromboxane, leukotrienes, isoprostanes and related compounds in humans

L1 ANSWER 27 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Specific and rapid quantification of 8-iso-prostaglandin F2.alpha. in urine of healthy humans and patients with Zellweger syndrome by gas chromatography-tandem mass spectrometry

L1 ANSWER 28 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Enzymic synthesis of dioxygen-18-labeled 8-epi-prostaglandin F2.alpha. and its use in quantitative GC-tandem MS

L1 ANSWER 29 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Identification of novel metabolites of prostaglandin E2 formed by isolated rat hepatocytes

L1 ANSWER 30 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Rapid quantitation of a large scope of eicosanoids in two models of inflammation: development of an electrospray and tandem mass spectrometry method and application to biological studies

L1 ANSWER 31 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Tandem cyclopropylcarbinyl/oxiranylcarbinyl radical rearrangements: an entry into the prostaglandin B1 series

L1 ANSWER 32 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Three-component synthesis of prostanoids. Usage of aldehydes, nitro olefins and derivatives of carboxylic acids in tandem addition

L1 ANSWER 33 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Three-component synthesis of prostanoids. The use of alkyl halides in tandem addition

L1 ANSWER 34 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Synthesis of advanced prostaglandin precursors by Kolbe electrolysis, II. Preparation of coacids and anodic initiated tandem radical-addition/radical-coupling reaction with (1'R,4'S,3R/S)-3-(cis-4-acetoxycyclopent-2-enyloxy)-3-ethoxypropionic acid

L1 ANSWER 35 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Tandem mass spectrometry in the structural analysis of lipids

L1 ANSWER 36 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

TI Assay of urinary 2,3-dinor-6-oxo prostaglandin F1.alpha. by gas chromatography-tandem mass spectrometry

L1 ANSWER 37 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN



TI Prostanoids. XXXVIII. Tandem approach to preparation of novel sulfur-containing prostaglandin-like structures  
 L1 ANSWER 38 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Fast atom bombardment and collision-induced dissociation of prostaglandins and thromboxanes: some examples of charge remote fragmentation  
 L1 ANSWER 39 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Concepts for the determination of prostaglandins by tandem mass spectrometry  
 L1 ANSWER 40 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Synthesis of functionalized prostaglandins via the organozinc-aided three-component method  
 L1 ANSWER 41 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Mass spectrometry  
 L1 ANSWER 42 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Simultaneous determination of the primary prostanoids prostaglandin E2, prostaglandin F2.alpha. and 6-oxoprostaglandin F1.alpha. by immunoaffinity chromatography in combination with negative ion chemical ionization gas chromatography- tandem mass spectrometry  
 L1 ANSWER 43 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Tandem mass spectrometry of prostaglandins: a comparison of an ion trap and a reserved geometry sector instrument  
 L1 ANSWER 44 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Gas chromatography/mass spectrometry and gas chromatography/tandem mass spectrometry of methyl ester/methoxime/trimethylsilyl ether derivatives of prostaglandins  
 L1 ANSWER 45 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Determination of prostaglandin E2, prostaglandin F2.alpha. and 6-oxo-prostaglandin F1.alpha. in urine by gas chromatography/mass spectrometry and gas chromatography/tandem mass spectrometry: a comparison  
 L1 ANSWER 46 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN  
 TI Prostaglandin synthesis. 3. A general synthesis of primary prostaglandins

L1 ANSWER 45 OF 46 CAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1987:13050 CAPLUS

DOCUMENT NUMBER: 106:13050

TITLE: Determination of prostaglandin E2, prostaglandin F2.alpha. and 6-oxo-prostaglandin F1.alpha. in urine by gas chromatography/mass spectrometry and gas chromatography/tandem mass spectrometry: a comparison

AUTHOR(S): Schweer, Horst; Seyberth, Hannsjoerg W.; Schubert, Ralf

CORPORATE SOURCE: Universitaetskinderklin., Heidelberg, D-6900, Fed. Rep. Ger.

SOURCE: Biomedical & Environmental Mass Spectrometry (1986), 13(11), 611-19

CODEN: BEMSEN; ISSN: 0887-6134

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Electron impact fragmentation of Me ester/methyloxime/trimethylsilyl ether derivs. of PGE2 [363-24-6] and 6-oxo-PGF1.alpha. [58962-34-8] and the Me ester/-trimethylsilyl ether deriv. of prostaglandin F2.alpha. [551-11-1] is followed by Ar collision-activated dissocn. in a triple quadrupole mass spectrometer. Daughter ion chromatograms of prostaglandin derivs. show an enormous increase of selectivity compared to the multiple ion detection chromatograms of the same samples in single quadrupole mode.